

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) An acoustic wave transducer comprising ~~Transducer that works with surface acoustic waves and contains:~~

an acoustic spur (AS) ~~that has~~ comprising electrode fingers ~~of for~~ different electrodes, ~~(E1, E2) that engage~~ the electrode fingers engaging to form exciting finger pairs one another, the acoustic spur comprising marginal areas and an excitation area, the electrode fingers engaging in the excitation area, the marginal areas and the excitation area being located along a transverse direction of the acoustic wave transducer;

~~whereby in the acoustic spur (AS) an acoustic wave is excitable that is characterized by a transversal basic mode,~~

~~whereby the acoustic spur (AS) is divided in the transversal direction (Y) into an excitation area (MB) and two marginal areas (RB1, RB2),~~

~~whereby the~~ wherein a longitudinal phase speed of the an acoustic wave in the acoustic spur is less in a marginal area (RB1, RB2) is less than in the excitation area; (MB),

wherein the acoustic wave is excitable and has a transversal basic mode;

~~whereby~~ wherein the following applies in the transversal basic mode for the a wave number k_y of the transversal basic mode the following applies:

$(k_y)^2 > 0$ in a marginal area, ~~(RB1, RB2)~~ and

$(k_y)^2 < 0$ in an exterior area ~~(AU1, AU2)~~ outside the acoustic spur;
and (AS),

~~whereby wherein in the excitation area (MB)~~ k_y is numerically substantially smaller
in the excitation area than in the marginal areas ~~(RB1, RB2)~~ and in the exterior area areas
~~(AU1, AU2).~~

2. (Currently Amended) The acoustic wave transducer of Transducer in
~~accordance with~~ claim 1, wherein in which k_y ~~[[= 0]]~~ equals about zero in the excitation
area ~~(MB).~~

3. (Currently Amended) The acoustic wave transducer of Transducer in
~~accordance with~~ claim 1, ~~in which~~ wherein the excitation area ~~(MB)~~ is divided in the
transversal direction (Y) into several comprises partial spurs in the transverse direction,
~~(TB1, TB2, TB3, TB4)~~ the partial spurs corresponding that correspond to partial
transducers that are ~~switched to one another~~ interconnected in series and/or in parallel.

4. (Currently Amended) The acoustic wave transducer of Transducer in
~~accordance with~~ claim 3, ~~whereby wherein~~ the partial spurs are substantially identical in a
designed identically in the longitudinal direction, and at least two of the partial spurs have
different widths; and (X) up to their width,

~~whereby the width of~~ wherein the partial spurs ~~is selected so~~ have widths that adapt
~~a the~~ transversal profile Ψ_y of ~~the an~~ excitation strength in the excitation area ~~(MB) is~~
~~adapted to the a~~ shape Φ_y of the transversal basic mode.

5. (Currently Amended) The acoustic wave transducer of Transducer in
~~accordance with claim 3 or 4~~, in which the following applies for adapting the transversal
profile Ψ_y of the excitation strength to the shape Φ_y of the transversal basic mode, where
"y" corresponds to the transverse direction:

$$\int \Psi_y \Phi_y dy / \sqrt{\int \Psi_y^2 dy \cdot \int \Phi_y^2 dy} \geq 0,9 .$$

6. (Currently Amended) The acoustic wave transducer of claim 3, Transducer in
~~accordance with any of claims 3 through 5, in which~~ wherein the partial spurs comprise
~~have~~ a center partial spur ~~(MT)~~ and ~~two~~ marginal partial spurs; ~~(RT1, RT2)~~,

~~whereby~~ wherein the marginal partial spurs ~~(RT1, RT2)~~ are ~~switched~~
interconnected in series ~~with one another~~ and form a ~~serial series~~ circuit[.];

~~whereby~~ wherein the ~~serial series~~ circuit is ~~switched~~ connected in parallel to the
center partial spur; and (MT),

~~whereby the~~ wherein a width of the center partial spur ~~(MT)~~ is greater than a the
width of ~~the a~~ marginal partial spur ~~(RT1, RT2)~~ by at least a factor of five [[5]].

7. (Currently Amended) The acoustic wave transducer of claim 1, wherein
~~Transducer in accordance with any of claims 1 through 6, in which~~ the marginal areas
~~(RB1, RB2) are each designed as~~ each comprise a continuous metal strip in ~~the a~~
longitudinal direction ~~and with~~ have a transversal transverse width of $\lambda_y/4$, where λ_y is a
wavelength of the transversal basic mode in a corresponding marginal area.

8. (Currently Amended) The acoustic wave transducer of ~~Transducer in~~
~~accordance with any of claims 1 through 6, in which the~~ claim 1, wherein a number of the
electrode fingers per unit of length is greater in the marginal areas ~~(RB1, RB2)~~ is greater
than in the excitation area ~~(MB)~~.

9. (Currently Amended) The acoustic wave transducer of claim 1, Transducer in
~~accordance with any of claims 1 through 8, in which~~ wherein the electrode fingers for of
different electrodes ~~(E1, E2) are arranged in the excitation area (MB) on~~ define a periodic
grid in the excitation area.

10. (Currently Amended) The acoustic wave transducer of ~~Transducer in~~
~~accordance with any of claims 1 through 8, in which~~ claim 1, wherein the excitation area
~~(MB) in the longitudinal direction is divided into~~ comprises unidirectionally radiating or
reflecting cells in a longitudinal direction of the acoustic wave transducer; and [,]

~~whereby several~~ wherein electrode fingers in the excitation area (~~MB~~) that are ~~arranged adjacent to one another~~ in the longitudinal direction ~~form~~ define a cell ~~with radiation of~~ to radiate the acoustic wave in a ~~preferred~~ specific direction or a cell with a reflecting effect.

11. (Currently Amended) The acoustic wave transducer of Transducer in
~~accordance with any of claims 1 through 10, in which, in addition to the first acoustic spur~~
~~(AS), claim 1, wherein the acoustic spur is a first acoustic spur, and wherein the acoustic~~
wave transducer further comprises:

at least one additional acoustic spur (~~AS'~~) ~~is provided that is divided into~~
comprising an excitation area (~~MB'~~) and marginal areas (~~RB1', RB2'~~), the at least one
additional acoustic spur being substantially ~~and is constructed largely~~ identical to the first
acoustic spur (~~AS~~), ~~whereby wherein the acoustic spurs (AS, AS')~~ first acoustic spur and
the at least one additional acoustic spur are arranged parallel; and to one another,

~~whereby~~ an intermediate area (~~ZB~~) ~~is arranged between two acoustic spurs; [[,]]~~

~~whereby the~~ wherein widths of ~~the~~ marginal areas (~~RB1, RB2, RB1', RB2'~~) of the
acoustic spurs (~~AS, AS'~~) ~~are selected so that the~~ produce a wave number k_y in the
intermediate area (~~ZB~~) ~~is numerically that is~~ smaller by at least one order of magnitude
than in the marginal areas (~~RB1, RB2~~) and in ~~the~~ exterior areas of the acoustic spurs; and
(~~AU1, AU2~~),

~~whereby the~~ wherein a phase speed in ~~the~~ excitation areas (~~MB, MB'~~) of different acoustic spurs (~~AS, AS'~~) and in the intermediate area (~~ZB~~) is essentially ~~the~~ same.

12. (Currently Amended) The acoustic wave transducer of ~~Transducer in~~
~~accordance with claim 11 [[1]], in which the~~ wherein a number of electrode fingers per unit
of length in the intermediate area (ZB) is essentially equal to ~~the~~ a number of electrode
fingers per unit of length in ~~the~~ excitation areas (~~MB, MB'~~) of different acoustic spurs (~~AS,~~
~~AS'~~).

13. (Currently Amended) The acoustic wave transducer of ~~Transducer in~~
~~accordance with claim 12, in which the~~ wherein electrode fingers in the intermediate area
(~~ZB~~) ~~are arranged on~~ define a periodic grid.

14. (Currently Amended) The acoustic wave transducer of claim 1 ~~Transducer in~~
~~accordance with any of claims 1 through 13, whereby the~~ wherein a width of a marginal
area (~~RB1, RB2~~) in the ~~transversal~~ transverse direction is essentially $\lambda_y/4$, ~~whereby where~~
 λ_y is ~~the~~ a wavelength of the transversal basic mode in ~~the~~ a corresponding marginal area
(~~RB1, RB2~~).

15. (Currently Amended) A filter comprising the acoustic wave transducer of
claim 1 ~~Filter with at least one transducer in accordance with claims 1 through 14.~~